

IN THE DRAWINGS

The attached sheet of drawings includes changes to Figs. 2-5. The sheets replace the original sheets including the same figures. In the figures, the separation line between the panels and perimeter framing members are shown.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

REMARKS/ARGUMENTS

Applicant thanks the Examiner for the oral interview in which the Examiner indicated the claim amendments appears to distinguish the cited prior art. Applicants have amended the drawings to separate the panels from the perimeter framing members, consistent with the Examiner's suggestions. Support for the depiction of the panels being separate from the perimeter framing member includes p. 1, lines 10-13; p. 3, lines 15-20; p. 10, lines 14-19; p. 11, lines 5-10; p. 21, lines 6-20; p. 23, lines 3-4; p. 27, lines 3-6; and Figs. 16-28.

The Examiner rejects claim 56 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Claim 56 has been amended to overcome this rejection.

The Examiner rejects claims 60, 72, 83, 104, 108, and 112 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention. Applicant has amended the claims to overcome this rejection.

The Examiner rejects claims 56-60, 62-72, 74-83, 85-89, and 104-120 under 35 U.S.C. §102(b) as being anticipated by Kajiura (U.S. 5,046,293) and claims 61, 73, and 84 under 35 U.S.C. §103(a) as being unpatentable over Kajiura.

Applicant respectfully traverses the Examiner's rejections. Kajiura fails to teach or suggest at least the following italicized features of the independent claims:

56. A wall system, comprising:
at least a first perimeter framing member configured to hold at least a first wall panel;
at least a second perimeter framing member configured to hold at least a second wall panel, wherein the first and second perimeter framing members engage one another, wherein at least one of the first and second perimeter framing members defines a recess extending inwardly relative to exterior surfaces of the first and second wall panels, wherein at least one of the first and second perimeter framing members comprises a plurality of drainage holes, wherein the plurality of drainage holes are in fluid communication with a gutter located in an interior region behind the first and second panels and the first and second perimeter framing members, and *wherein the gutter collects and provides to the drainage holes moisture located in the interior region for discharge into an exterior environment located exteriorly of the first and second perimeter framing members and first and second wall panels*; and

a capillary break positioned on at least one of the first and second perimeter framing members, wherein the capillary break is spaced from the plurality of drainage holes and located exteriorly of the drainage holes and, along with surfaces of the recess, defines a circulating chamber located interiorly of the capillary break, whereby entry of terrestrial fluids into at least one of the plurality of drainage holes is impeded, *wherein the circulating chamber is positioned between the drainage holes and the capillary break*, wherein a free end of the capillary break is separated from one of the first and second perimeter framing members by a gap through which terrestrial fluids pass to enter the circulating chamber, wherein a lower surface of the circulating chamber is contoured to permit terrestrial fluids collected in the circulating chamber in the form of a liquid to flow as a liquid through the gap along the lower surface for discharge into the exterior environment, wherein the plurality of drainage holes are located above the free end of the capillary break, and wherein the capillary break extends downwardly from the at least one of the first and second perimeter framing members.

67. A wall system, comprising:

at least a first perimeter framing member configured to hold at least a first wall panel;

at least a second perimeter framing member configured to hold at least a second wall panel, wherein the first and second perimeter framing members engage one another, wherein at least one of the first and second perimeter framing members defines a recess extending inwardly relative to exterior surfaces of the first and second wall panels, wherein at least one of the first and second perimeter framing members comprises a plurality of drainage holes, wherein the plurality of drainage holes are in fluid communication with a gutter in an interior region behind the first and second wall panels, *the gutter discharging moisture located in the interior region into an exterior environment located exteriorly of the first and second perimeter framing members and first and second wall panels*; and

a capillary break positioned on at least one of the first and second perimeter framing members, wherein the capillary break is spaced from the plurality of drainage holes and located between exterior surfaces of the first and second panels and the drainage holes, whereby entry of terrestrial fluids into at least one of the plurality of drainage holes is impeded, wherein the capillary break and walls of the recess define a circulating chamber located in the recess, *wherein the circulating chamber is positioned between the drainage holes and the capillary break*, wherein the drainage holes and circulating chamber are interiorly of the capillary break, wherein a free end of the capillary break is separated from one of the first and second perimeter framing members by a gap through which terrestrial fluids pass to enter the circulating chamber, wherein a lower surface of the circulating chamber is contoured to permit terrestrial fluids collected in the circulating chamber in the form of a liquid to flow as a liquid along the lower surface and through the gap for discharge into the exterior environment, wherein the plurality of drainage holes are located above the free end of the capillary break, and

wherein the capillary break extends downwardly from the at least one of the first and second perimeter framing members.

79. A wall system, comprising:
at least a first perimeter framing member configured to hold opposing interior and exterior surfaces of at least a first wall panel;
at least a second perimeter framing member configured to hold opposing interior and exterior surfaces of at least a second wall panel, wherein the first and second perimeter framing members engage one another, wherein at least one of the first and second perimeter framing members defines a recess relative to exterior surfaces of the first and second wall panels, wherein at least one of the first and second perimeter framing members comprises a plurality of drainage holes, wherein the plurality of drainage holes are in fluid communication with a gutter located in an interior region behind the first and second panels and the first and second perimeter framing members, and *wherein the gutter collects and provides to the drainage holes moisture located in the interior region for discharge into an exterior environment located exteriorly of the first and second perimeter framing members and first and second wall panels*; and
capillary break means positioned on at least one of the first and second perimeter framing members for redirecting flow of terrestrial fluids, wherein the capillary break is located exteriorly of and spaced from the plurality of drainage holes and, along with surfaces of the recess, defines a circulating chamber operable to impede entry of terrestrial fluids into the interior region, the circulating chamber being located interiorly of the capillary break means, *wherein the circulating chamber is positioned between the capillary break means and the drainage holes*, wherein a free end of the capillary break means is separated from one of the first and second perimeter framing members by a gap through which terrestrial fluids pass to enter the circulating chamber and wherein a lower surface of the circulating chamber is contoured to permit terrestrial fluids collected in the circulating chamber in the form of a liquid to flow, as a liquid, along the lower surface and through the gap for discharge into the exterior environment, wherein the plurality of drainage holes are located above the free end of the capillary break means, and wherein the capillary break means extends downwardly from the at least one of the first and second perimeter framing members.

113. A wall system, comprising:
at least a first perimeter framing member configured to hold at least a first wall panel;
at least a second perimeter framing member configured to hold at least a second wall panel, wherein the first and second perimeter framing members engage one another, wherein at least one of the first and second perimeter framing members defines a recess extending inwardly relative to exterior surfaces of the first and second wall panels, wherein at least one of the first and second perimeter framing members comprises a

plurality of drainage holes, wherein the plurality of drainage holes are in fluid communication with a gutter located in an interior region behind the first and second panels and the first and second perimeter framing members, and *wherein the gutter collects and provides to the drainage holes moisture located in the interior region for discharge into an exterior environment located exteriorly of the first and second perimeter framing members and first and second wall panels*; and

a capillary break positioned on at least one of the first and second perimeter framing members, wherein the capillary break is spaced from the plurality of drainage holes and, along with surfaces of the recess, defines a circulating chamber, whereby entry of terrestrial fluids into at least one of the plurality of drainage holes is impeded, *wherein the circulating chamber is positioned between the drainage holes and the capillary break*, wherein a free end of the capillary break is separated from one of the first and second perimeter framing members by a gap through which terrestrial fluids pass to enter the circulating chamber, wherein a lower surface of the circulating chamber is contoured to permit terrestrial fluids collected in the circulating chamber to flow through the gap along the lower surface for discharge into the exterior environment, wherein the plurality of drainage holes are located above the free end of the capillary break, wherein the capillary break extends downwardly from the at least one of the first and second perimeter framing members, wherein the recess has a downwardly sloped lower surface to permit terrestrial fluids in the circulating chamber to flow along the lower surface, and into the exterior environment, *wherein an adjacent edge of a nearest drainage hole is at least about 0.75 inches from a rear surface of the capillary break*, wherein the plurality of drainage holes are located on the first perimeter framing member and the capillary break is located on the second perimeter framing member, *wherein the openings of the plurality of drainage holes are located on an at least substantially vertical surface*, and wherein the openings of the plurality of drainage holes are located above a free end of the capillary break.

115. A wall system, comprising:

at least a first perimeter framing member configured to hold at least a first wall panel;

at least a second perimeter framing member configured to hold at least a second wall panel, wherein the first and second perimeter framing members engage one another, wherein at least one of the first and second perimeter framing members defines a recess extending inwardly relative to exterior surfaces of the first and second wall panels, wherein at least one of the first and second perimeter framing members comprises a plurality of drainage holes, wherein the plurality of drainage holes are in fluid communication with a gutter in an interior region behind the first and second wall panels, *the gutter discharging moisture located in the interior region into an exterior environment located exteriorly of the first and second perimeter framing members and first and second wall panels*; and

a capillary break positioned on at least one of the first and second perimeter framing members, wherein the capillary break is spaced from the plurality of drainage

holes and located between exterior surfaces of the first and second panels and the drainage holes, whereby entry of terrestrial fluids into at least one of the plurality of drainage holes is impeded, *wherein the circulating chamber is positioned between the drainage holes and the capillary break*, wherein the capillary break and walls of the recess define a circulating chamber located in the recess, wherein a free end of the capillary break is separated from one of the first and second perimeter framing members by a gap through which terrestrial fluids pass to enter the circulating chamber, wherein a lower surface of the circulating chamber is contoured to permit terrestrial fluids collected in the circulating chamber to flow along the lower surface and through the gap for discharge into the exterior environment, wherein the plurality of drainage holes are located above the free end of the capillary break, wherein the capillary break extends downwardly from the at least one of the first and second perimeter framing members, wherein the capillary break is positioned between an opening of the recess on the one hand and the drainage holes and circulating chamber on the other hand, and wherein the plurality of drainage holes are located on one of the first and second perimeter framing members and the capillary break is located on the other of one of the first and second perimeter framing members.

116. A wall system, comprising:

at least a first perimeter framing member configured to hold at least a first wall panel;

at least a second perimeter framing member configured to hold at least a second wall panel, wherein the first and second perimeter framing members engage one another, wherein at least one of the first and second perimeter framing members defines a recess extending inwardly relative to exterior surfaces of the first and second wall panels, wherein at least one of the first and second perimeter framing members comprises a plurality of drainage holes, wherein the plurality of drainage holes are in fluid communication with a gutter in an interior region behind the first and second wall panels, *the gutter discharging moisture located in the interior region into an exterior environment located exteriorly of the first and second perimeter framing members and first and second wall panels*; and

a capillary break positioned on at least one of the first and second perimeter framing members, wherein the capillary break is spaced from the plurality of drainage holes and located between exterior surfaces of the first and second panels and the drainage holes, whereby entry of terrestrial fluids into at least one of the plurality of drainage holes is impeded, wherein the capillary break and walls of the recess define a circulating chamber located in the recess, *wherein the circulating chamber is positioned between the drainage holes and the capillary break*, wherein a free end of the capillary break is separated from one of the first and second perimeter framing members by a gap through which terrestrial fluids pass to enter the circulating chamber, wherein a lower surface of the circulating chamber is contoured to permit terrestrial fluids collected in the circulating chamber to flow along the lower surface and through the gap for discharge

into the exterior environment, wherein the plurality of drainage holes are located above the free end of the capillary break, wherein the capillary break extends downwardly from the at least one of the first and second perimeter framing members, wherein the recess has a sloped lower surface to permit terrestrial fluids in the circulating chamber to flow along the lower surface and into the exterior environment and *wherein an adjacent edge of a nearest drainage hole is at least about 0.75 inches from the rear surface of the capillary break*, wherein the plurality of drainage holes are located on the first perimeter framing member and the capillary break is located on the second perimeter framing member, *wherein the openings of the plurality of drainage holes are located on an at least substantially vertical surface*, and wherein the openings of the plurality of drainage holes are located above a free end of the capillary break.

118. A wall system, comprising:

at least a first perimeter framing member configured to hold opposing interior and exterior surfaces of at least a first wall panel;

at least a second perimeter framing member configured to hold opposing interior and exterior surfaces of at least a second wall panel, wherein the first and second perimeter framing members engage one another, wherein at least one of the first and second perimeter framing members defines a recess relative to exterior surfaces of the first and second wall panels, wherein at least one of the first and second perimeter framing members comprises a plurality of drainage holes, wherein the plurality of drainage holes are in fluid communication with a gutter located in an interior region behind the first and second panels and the first and second perimeter framing members, and *wherein the gutter collects and provides to the drainage holes moisture located in the interior region for discharge into an exterior environment located exteriorly of the first and second perimeter framing members and first and second wall panels*; and

capillary break means positioned on at least one of the first and second perimeter framing members for redirecting flow of terrestrial fluids, wherein the capillary break means is spaced from the plurality of drainage holes and, along with surfaces of the recess, defines a circulating chamber operable to impede entry of terrestrial fluids into the interior region, *wherein the circulating chamber is positioned between the capillary break means and the drainage holes*, wherein a free end of the capillary break means is separated from one of the first and second perimeter framing members by a gap through which terrestrial fluids pass to enter the circulating chamber and wherein a lower surface of the circulating chamber is contoured to permit terrestrial fluids collected in the circulating chamber to flow along the lower surface and through the gap for discharge into the exterior environment, wherein the plurality of drainage holes are located above the free end of the capillary break means, wherein the capillary break means extends downwardly from the at least one of the first and second perimeter framing members, wherein the capillary break is positioned between an opening of the recess on the one hand and the drainage holes and circulating chamber on the other hand, and wherein the plurality of drainage holes are located on one of the first and second perimeter framing

members and the capillary break means is located on the other of one of the first and second perimeter framing members.

119. A wall system, comprising:

at least a first perimeter framing member configured to hold opposing interior and exterior surfaces of at least a first wall panel;

at least a second perimeter framing member configured to hold opposing interior and exterior surfaces of at least a second wall panel, wherein the first and second perimeter framing members engage one another, wherein at least one of the first and second perimeter framing members defines a recess relative to exterior surfaces of the first and second wall panels, wherein at least one of the first and second perimeter framing members comprises a plurality of drainage holes, wherein the plurality of drainage holes are in fluid communication with a gutter located in an interior region behind the first and second panels and the first and second perimeter framing members, and *wherein the gutter collects and provides to the drainage holes moisture located in the interior region for discharge into an exterior environment located exteriorly of the first and second perimeter framing members and first and second wall panels*; and

capillary break means positioned on at least one of the first and second perimeter framing members for redirecting flow of terrestrial fluids, wherein the capillary break means is spaced from the plurality of drainage holes and, along with surfaces of the recess, defines a circulating chamber operable to impede entry of terrestrial fluids into the interior region, *wherein the circulating chamber is positioned between the capillary break means and the drainage holes*, wherein a free end of the capillary break means is separated from one of the first and second perimeter framing members by a gap through which terrestrial fluids pass to enter the circulating chamber and wherein a lower surface of the circulating chamber is contoured to permit terrestrial fluids collected in the circulating chamber to flow along the lower surface and through the gap for discharge into the exterior environment, wherein the plurality of drainage holes are located above the free end of the capillary break means, wherein the capillary break means extends downwardly from the at least one of the first and second perimeter framing members, wherein the recess has an inclined lower surface to permit terrestrial fluids in the circulating chamber to flow along the lower surface and into the exterior environment, *wherein an adjacent edge of a nearest drainage hole is at least about 0.75 inches from the rear surface of the capillary break means*, wherein the plurality of drainage holes are located on the first perimeter framing member and the capillary break means is located on the second perimeter framing member, *wherein the openings of the plurality of drainage holes are located on an at least substantially vertical surface*, and wherein the openings of the plurality of drainage holes are located above a free end of the capillary break means.

Kajiura is directed to an arrangement for mounting in an opening of a building frame a window unit having at least one panel mounted in a rectangular framework formed by a pair of left and right longitudinal frames and an upper transverse frame and a lower transverse frames which are connected, respectively, to the longitudinal frames at upper and lower positions. The arrangement includes upper connecting metal fixtures fixedly secured to the upper part of the opening of the building frame. The indoor side of the upper transverse frame is connected to the upper connecting metal fixtures and the indoor side of the lower transverse frame is connected to the lower connecting metal fixtures. In this manner, a window can be mounted rigidly on the building frame by a simple operation in such a manner as to prevent deformation or bending of a lower window frame and a transom towards the indoor side by the action of wind pressure and the like.

The Examiner relies on the arrangement depicted in Fig. 2. The Examiner calls the downwardly projecting part of the longitudinal plate 5b the capillary break, the perforations in the insect or bird control net 70 the drainage holes, the air conditioning air input duct 71 the gutter, and the circulating chamber the area defined by the interior surfaces of the plate 5b, upper body 4a and net 70.

We believe that the Examiner's reliance on Kajiura is misplaced for at least the following reasons:

(a) the "gutter" or air conditioning duct of Kajiura is designed to supply air to the air-conditioning unit and not to collect and provide to the drainage holes for removal moisture located in the interior region behind the wall panels (any water in the air conditioning duct is structurally blocked from removal through the drainage holes);

(b) the "drainage holes" are not located on a substantially vertical surface (which is a requirement of some of the rejected independent claims); and

(c) the circulating chamber is not positioned between the bird screen ("drainage holes) and capillary break but between the bird screen and the air conditioning duct opening ("gutter").

Accordingly, the pending claims are allowable.

The pending dependent claims provide further reasons for allowance.

Dependent claims 57, 69, and 80 require an adjacent edge of a nearest drainage hole is at least about 0.75 inches from the rear surface of the capillary break.

Dependent claims 58, 70, and 81 require a first space between a free end of the capillary break and an opposing wall of the recess to have a first vertical cross-sectional area and a second space between opposing walls of the recess at a point between the capillary break and the plurality of drainage holes a second vertical cross-sectional area and the second vertical cross sectional area is at least about 150% of the first vertical cross sectional area. In contrast, the circulating chamber of Kajiura will not cause an air velocity drop. Kajiura does not teach an expansion of the cross-sectional area perpendicular to the direction of flow as the fluid moves from the capillary break and into the circulating chamber defined by the screen 70, longitudinal plate 5b, and upper body 4a. In fact, the cross-sectional area of flow *decreases* as one moves into the circulating chamber; therefore, the velocity of the fluid will *increase* rather than decreasing, thereby preventing liquid droplets from dropping out of the fluid before it enters the bird screen. Thus, Kajiura *teaches away* from the present invention.

Dependent claims 59, 71, and 82 require, at any location along the capillary break, an adjacent edge of a nearest drainage hole is at least about 0.25 inches from a rear surface of the capillary break.

Dependent claims 60, 72, and 83 require the centers of the plurality of drainage holes to lie along an axis, and a distance of the drainage holes above a free end of the capillary break to be at least about 125% of a distance from the free end of the capillary break to an adjacent, opposing surface of the circulating chamber.

Dependent claims 61, 73, and 84 require a surface of the capillary break adjacent to the plurality of drainage holes to be concave, and the first and second wall panels each to be a composite of metal and plastic.

Dependent claims 60, 62, 72, 74, 83, and 85 require the plurality of drainage holes to be spaced at regular intervals along the at least one of the first and second perimeter framing members, and a height of the capillary break to range from about 125 to about 200% of a

distance between a free end of the capillary break and an adjacent, opposing surface of the circulating chamber.

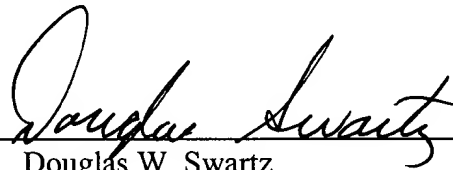
Dependent claim 66, 78, and 89 require the capillary break to have a height and be separated by a gap from the first perimeter framing member, the height to be at least about 100% of the width of the gap and exterior surfaces of the first and second wall panels to be at least substantially parallel and coplanar.

New dependent claims 121 and 122 require a side of the gutter is open to the interior region. As can be seen from 2, of Kajiura, the air-conditioning duct is fully enclosed and, therefore, sealed from the interior region behind the panels.

Based upon the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

SHERIDAN ROSS P.C.

By: 
Douglas W. Swartz
Registration No. 37,739
1560 Broadway, Suite 1200
Denver, Colorado 80202-5141
(303) 863-9700

Date: April 20, 2006

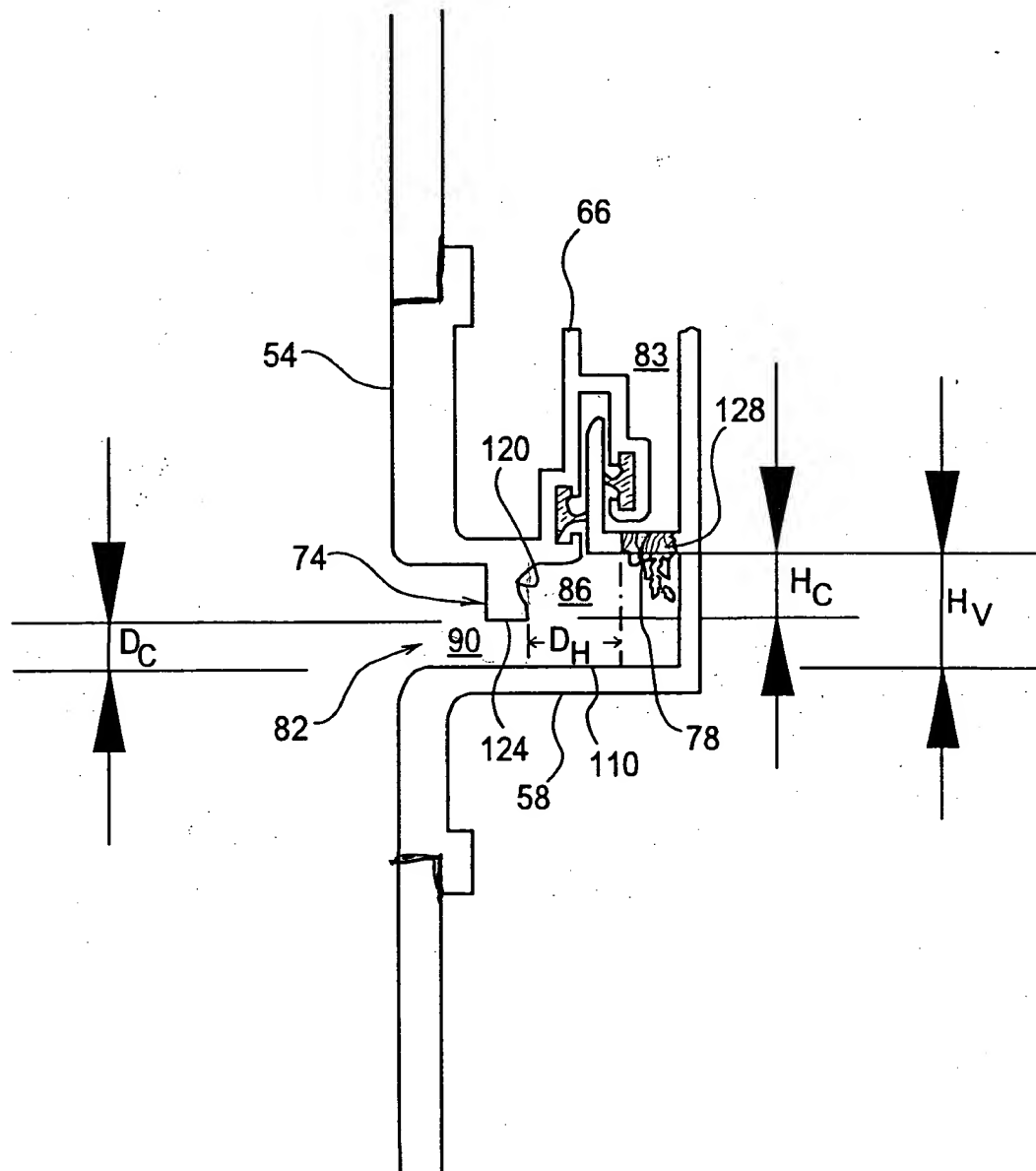


FIG. 2

Title of Invention: "METHOD AND APPARATUS FOR ERECTING WALL PANELS"
Inventor's Name: MITCHELL
Serial No. 09/886,297
Docket No. 3374-4-1-1
Attorney: Douglas W. Swartz
Telephone: 303/863-9700

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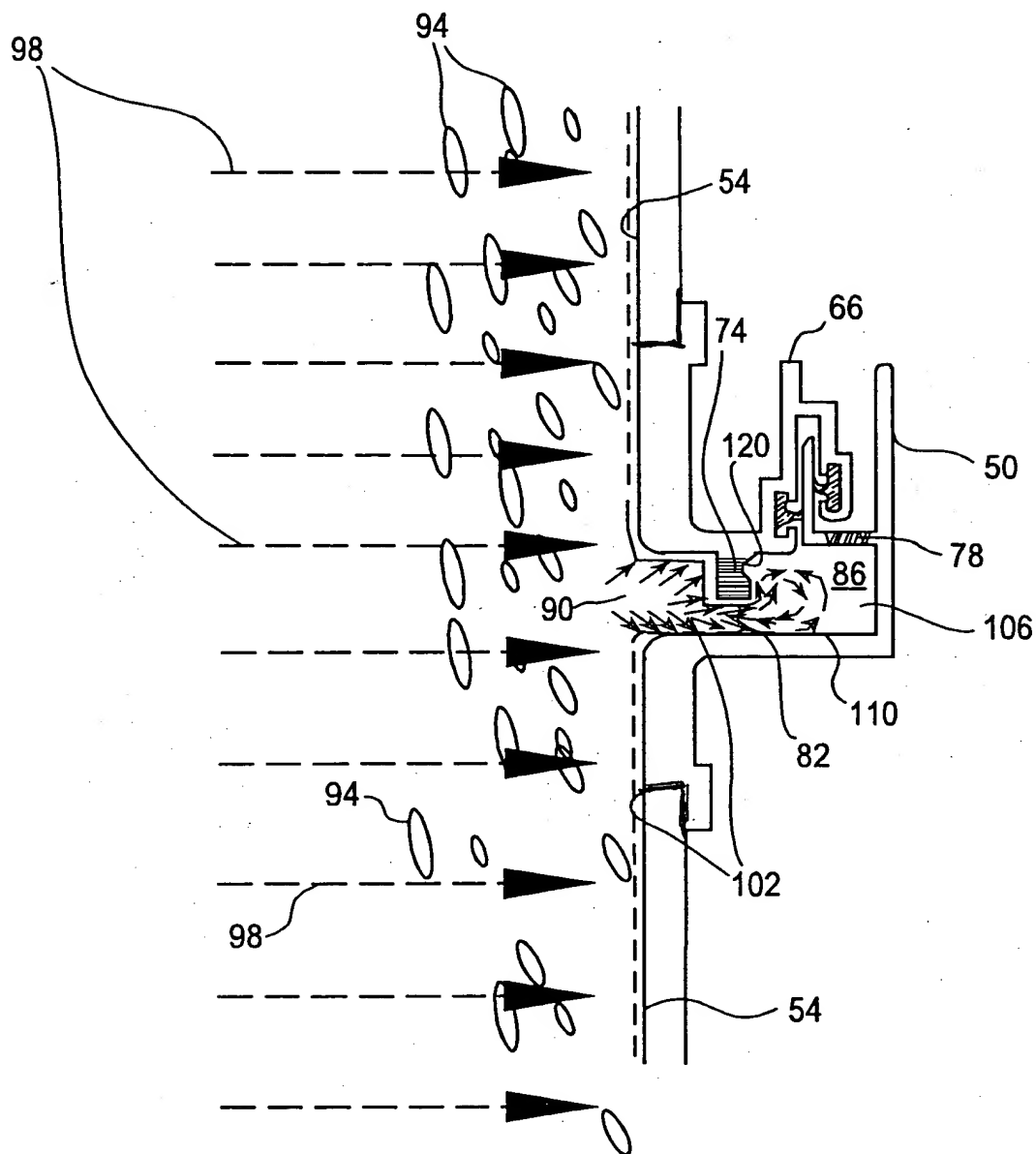


FIG. 3

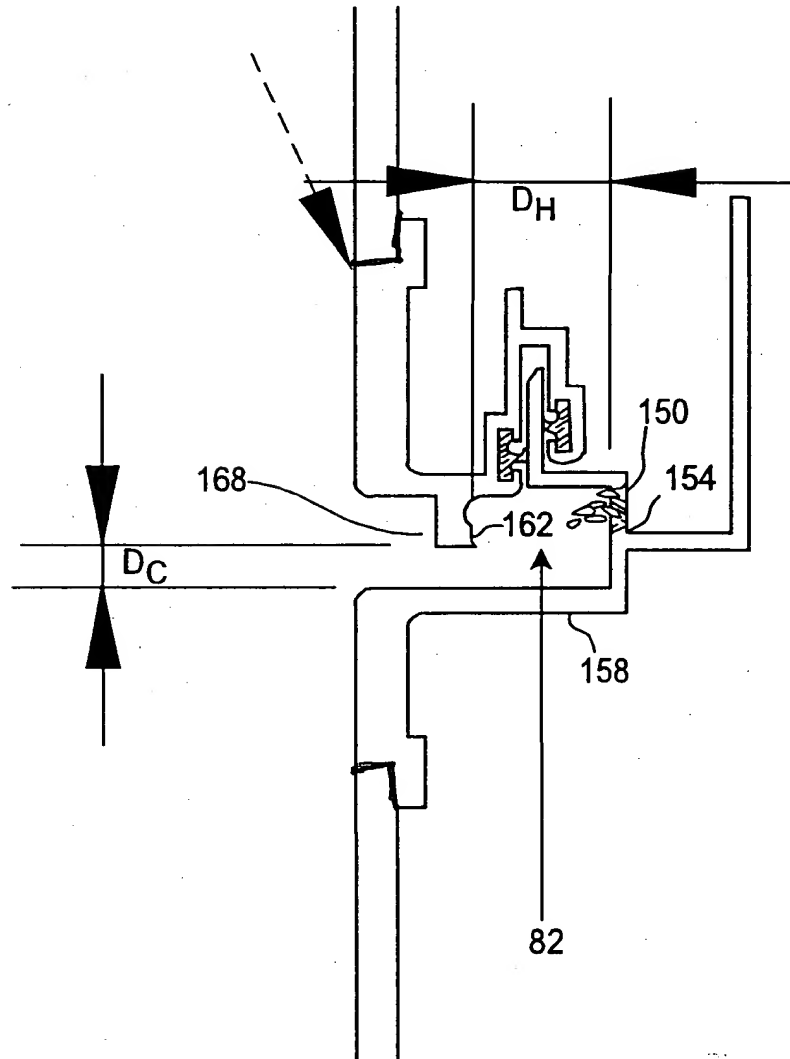


FIG. 4

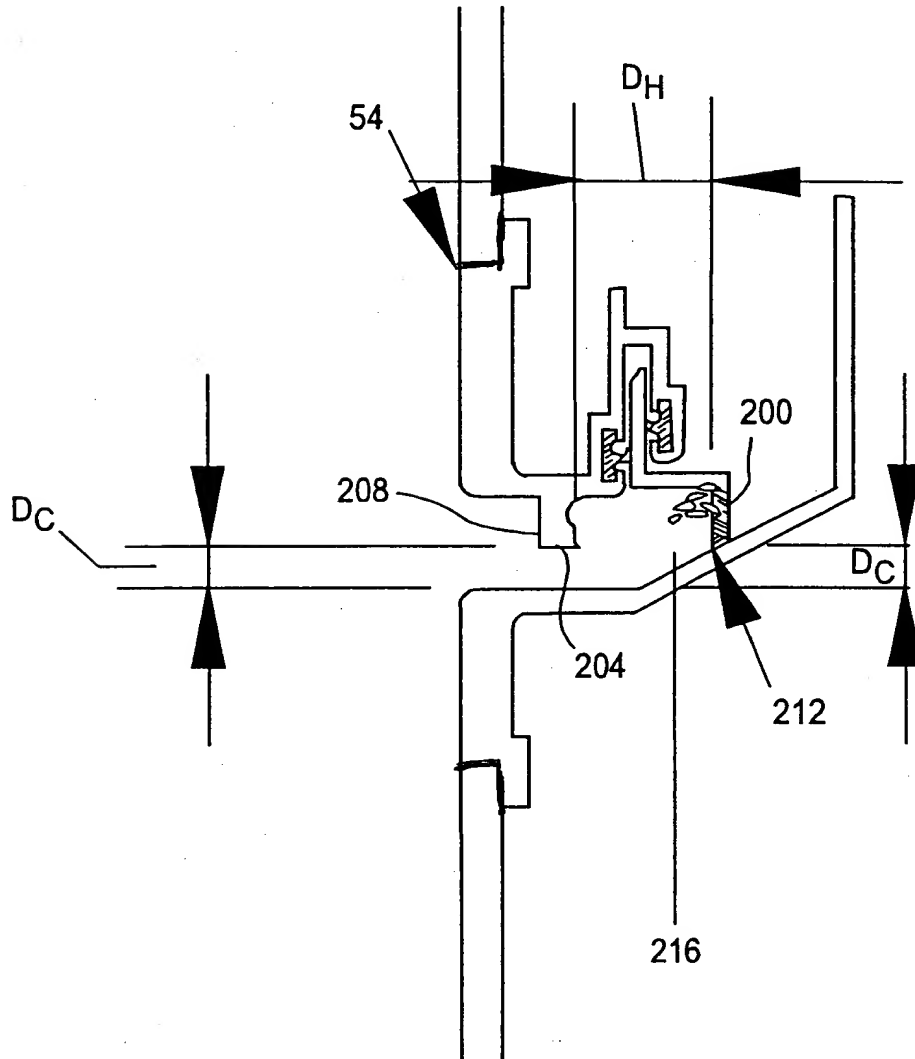


FIG. 5